REMARKS

Claims 1-18 are currently pending in the above application. Claims 19-36 are added by the foregoing amendment. Claim 9 stands rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Claims 8 and 9 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 1 and 2 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford et al. (U.S. Patent No. 5,970,113) in view of Nakagawa et al. (Japanese Patent No. 04315985A). Claims 3-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford et al. (U.S. Patent No. 5,970,113) in view of Nakagawa et al. (Japanese Patent No. 04315985A) in view of Sasaki et al. (U.S. Patent No. 6,411,672).

Rejection of claims 8 and 9 under 35 U.S.C. §112

Claim 9 stands rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement. Applicants have modified Claim 9 to properly indicate "decreasing", not "increasing" the flow of coolant, similar to claim 18.

Claim 8 stands rejected under 35 U.S.C. §112, second paragraph, due to the limitation "narrow operating temperature range", which is not found in claim 8 or in claim 3. Applicants have modified to 8 to remove reference to "narrow" to overcome this antecedent basis problem.

It is respectfully submitted that these changes satisfy the requirements of 35 U.S.C. 112, second paragraph. Reconsideration of claims 1-12 and 14-25 is respectfully requested.

Rejection of claims 1 and 2 under 35 U.S.C. §103(a)

Claims 1 and 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Crawford et al. (U.S. Patent No. 5,970,113) in view of Nakagawa et al. (JP 04,315,985). Applicants respectfully traverse this rejection.

Crawford et al. discloses a method and apparatus for performing CT scans of baggage being carried or loaded onto commercial aircraft. Crawford et al. measures temperatures during the actual scanning and comparing the value to a stored offset versus temperature curve to identify an offset to be applied to the data obtained by the scanning detectors.

The present invention, as in claims 1 and 2, is used primarily in medical diagnostic imaging, medical therapy, and various medical testing in addition to material analysis. The present invention measures a second offset value immediately prior to or after scanning to determine the temperature of the detector panel. The present invention is novel, notwithstanding the Crawford et al. reference.

As described in the Abstract, Nakagawa et al. discloses a method to determine the temperature of a photoelectric transfer element by measuring and holding the dark current of a photoelectric transfer element a fixed time earlier than radiation exposure, and finding the temperature of the photoelectric transfer element at the exposure, and correcting the temperature.

The present invention, as in claim 1 and 2, measures a second offset value immediately before or immediately after use of the X-ray imaging device, which Nakagawa et al. does not disclose. The present invention is novel, notwithstanding the Nakagawa et al. reference.

Section 2143 of the Manual of Patent Examining Procedure states that three basic criteria must be met for establishing a *prima facie* case of obviousness, stating:

> "First, there must some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach all of the claim limitations."

"If the examiner does not establish a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." Section 2142 MPEP, ch. 2100, p. 110. "When the references cited by the Examiner fail to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned."[1] One cannot use hindsight reconstruction, picking and choosing among isolated disclosures in the prior art, to deny that the claimed invention is unobvious.[2]

Here, the Examiner has failed to establish a *prima facie* case of obviousness because neither the Crawford et al. or Nakagawa et al. reference, alone or in combination, discloses the step of measuring a second offset value immediately prior to or immediately after the use of the X-ray imaging system as is required in claims 1 and 2. As such, as stated above in MPEP 2143, the rejection is improper and must be overturned. Claims 1 and 2 are therefore non-obvious in view of the cited prior art. Reconsideration of claims 1 and 2 is respectfully requested.

To emphasize this point further, Applicants have added claims 19-36, in which a second offset value is measured immediately after the use of the X-ray imaging system is

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1 In re Ochiai, 71 F.3d 1565, 37 U.S.P.Q.2d 1127 (Fed. Cir. 1995), *citing* In re Fine, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).
2 In re Fine, 837 F.2d at 1075.

used, which neither Crawford et al. nor Nakagawa et al. disclose. Claims 19-36 are therefore allowable over the cited prior art as well. Consideration of new claims 19-36 is respectfully requested.

Rejection of claims 3-18 under 35 U.S.C. §103(a)

Claims 3-18 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Crawford et al. (U.S. Patent No. 5,970,113) in view of Nakagawa et al. (JP 04,315,985) and Sasaki et al. (U.S. Patent No. 6,411,672). Applicants respectfully traverse this rejection.

Sasaki et al. discloses a CT radiation detector having a heat exchanger which can provide heating or cooling to a solid state detection element array that utilizes a four way valve to control the direction of coolant flow from a heating function to a heat absorbing function.

The present invention, on the other hand, as claimed in claims 3-18 (and 21-36) does not have a separate heating function and heat absorbing function wherein the flow can be reversed using a four way valve. Instead, the conditioner unit may adjust the temperature upwardly or downwardly depending upon the calculated temperature as determined by the second offset value. To accomplish this, an electrical signal is sent to the conditioner as a function of the second offset value to adjust either the temperature or the coolant flow rate, or both, sent to the coldplate to maintain the detector panel in a desired operating temperature range. The present invention is works entirely differently than the Sasaki et al. invention. As such, the combination of Crawford et al., Nakagawa et al., and Sasaki et al. does not describe the claimed invention as in claims 3-18.

Further, the Examiner has failed to establish a *prima facie* case of obviousness, as required by MPEP 2143, because neither the Crawford et al. or Nakagawa et al. reference or Sasaki et al., alone or in combination discloses the step of measuring a second offset value

immediately prior to or immediately after the use of the X-ray imaging system and directing a signal to a conditioner unit to control the temperature of coolant flowing to the coldplate to maintain the detector panel in a desired operating temperature range.

As such, as stated above in MPEP 2143, the rejection is improper and must be overturned. Claims 3-18 are therefore non-obvious in view of the cited prior art. Reconsideration of claims 3-18 is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that claims 1-36 are in proper form and allowable over the cited prior art. The Examiner is authorized to charge and/or credit any fees to Deposit Account No. 50-0476 in the name of John A. Artz, P.C. as relates to this application. The Examiner is invited to telephone the Applicant's undersigned attorney at (248) 223-9500 if any unresolved matters remain.

Respectfully submitted,

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